

DREDGING MANAGEMENT PLAN

Correspondence



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
One Blackburn Drive
Gloucester, MA 01930-2298

MAY -3 2006

Matthew J. Stetter
Northern Ecological Associates, Inc.
Village Square, 33 Church Street
Fredonia, New York 14063

Dear Mr. Stetter,

This is in response to your letter dated April 7, 2006 requesting information on the presence of any species listed as threatened or endangered by NOAA's National Marine Fisheries Service (NMFS) that may be affected by the proposed construction of a Liquefied Natural Gas (LNG) facility at the Sparrows Point Industrial Complex at the mouth of the Patapsco River, Maryland.

AES Sparrows Point LNG, LLC proposes to construct, own and operate an LNG import, storage, and regasification facility. The project will include a 60-acre project site consisting of a parcel of land located between an existing graving dock and a floating dry dock. The project is anticipated to include a marine receiving terminal, three full containment 160,000-cubic meter LNG storage tanks, and facilities to support ship berthing and cargo offloading. The project also includes a closed-loop glycol vaporization system that will convert LNG back to its gaseous state prior to its delivery into an interstate pipeline system. Dredging within the Chesapeake Bay will be required, with the removal of 2.5 – 4 million cubic yards of material.

Several threatened and endangered species under the jurisdiction of NMFS can be found in the Chesapeake Bay and its tidal tributaries. Several species of sea turtles are known to be present in the Chesapeake Bay from April 1 – November 30 each year. Loggerhead (*Caretta caretta*), Kemp's ridley (*Lepidochelys kempi*), and green sea turtles (*Chelonia mydas*) are present in the Chesapeake Bay, mainly during late spring, summer and early fall when water temperatures are relatively warm. An estimated 3,000 - 10,000 loggerhead turtles and 500 Kemp's ridley sea turtles are found in the Chesapeake Bay annually. In the Chesapeake Bay, Kemp's ridleys frequently forage in shallow embayments, particularly in areas supporting submerged aquatic vegetation and on tidal flats. Approximately 95 percent of the loggerheads found in the Chesapeake Bay are juveniles; these turtles are found most commonly from the mouth of the Bay to the Potomac River while foraging along channel edges. The summer developmental habitat for green turtles encompasses estuarine and coastal waters of Chesapeake Bay. Leatherback sea turtles (*Dermochelys coriacea*) are predominantly pelagic but are also seasonally present in the Chesapeake Bay. Recent data from sightings and incidental captures in fishing gear indicate that loggerhead and Kemp's ridley are the species of sea turtles most likely to be found in the waters of Chesapeake Bay while leatherback and green sea turtles are less common in the area. Sea turtles are less common in the upper Bay; however, data from the Maryland Department of



Natural Resources sea turtle tagging program and data from the Sea Turtle Stranding and Salvage Network indicates that sea turtles do occur near the mouth of the Patapsco River.

The federally endangered shortnose sturgeon is known to be present in the Chesapeake Bay. Since 1996, the incidental capture of seventy-four shortnose sturgeon in the Chesapeake Bay and its tributaries had been reported via the US Fish and Wildlife Service Atlantic sturgeon reward program. This number includes four shortnose sturgeon captured incidentally in fishing gear at the mouth of the Patapsco River and several captured in the Bay just outside the mouth of the Patapsco River. Additionally, two mature egg-bearing females were captured in the Potomac River (one in September 2005 and one in March 2006). Researchers are currently tracking these individuals in an attempt to document successful spawning of shortnose sturgeon in the Chesapeake system in the spring of 2006.

Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) are distributed along the entire East Coast of the United States and have been designated a Species of Concern by NMFS. Many populations, including those found in the Chesapeake Bay, have undergone drastic declines in abundance since the late 1800s. Consequently, NMFS has initiated a status review for this species to determine if listing as threatened or endangered under the ESA is warranted. If it is determined that listing is warranted, a final rule listing the species could be published within a year from the date of publication of the listing determination or proposed rule.

The best available scientific information indicates that a reproducing Atlantic sturgeon population persists in the James River. Additionally, Atlantic sturgeon occupy the mainstem of the Chesapeake Bay and at least the York, Rappahannock, Nanticoke and Susquehanna Rivers. These populations are likely small and as such, may be particularly vulnerable to natural and/or anthropogenic disturbances. Atlantic sturgeon have been captured near the mouth of the Patapsco River. While Atlantic sturgeon receive no substantive or procedural protection under the ESA, NMFS recommends that project proponents consider implementing conservation actions to limit the potential for adverse effects on Atlantic sturgeon from proposed projects.

While endangered North Atlantic right (*Eubalaena glacialis*), humpback (*Megaptera novaeangliae*), and fin (*Balaenoptera physalus*) whales are rare visitors to the Chesapeake Bay, the area outside the Bay where the LNG vessels will be traveling is a high use area for these species. Endangered sperm whales (*Physeter macrocephalus*) may also be present further offshore, beyond the project location, but within the transit path of the vessels to and from the terminal. Large whales, particularly the North Atlantic right whale, are vulnerable to ship strikes, which often result in injury and mortality. The mid-Atlantic coast, including the area near the mouth of the Chesapeake Bay, is a seasonal migration corridor for female right whales and their calves. In recent years, the number of right whale deaths in the Chesapeake Bay area has been increasing, with at least 3 documented ship strike-related deaths since 2001.

NMFS recommends that the project proponents consider the following potential impacts to listed species while developing assessments of environmental impacts from the project:

- *Dredging*: Sturgeon and sea turtles are vulnerable to entrainment in hopper dredges, typically resulting in injury and death. Additionally, shortnose sturgeon have been killed by hydraulic pipeline and mechanical dredging operations. In order to assess the impacts

of dredging on listed species, NMFS will need to know the proposed volume, location, schedule, and type of dredge to be used. In general, NMFS will require that a NMFS-approved endangered species observer be present on the dredge to monitor for interactions with listed species.

- *In-water Construction:* Listed species are vulnerable to impacts from pile driving and other in-water construction activities, particularly if there are sound waves or sediment plumes produced. In order to assess the impacts of these activities on listed species, NMFS will need to know the number, type and size of piles to be driven as well as how they will be driven (i.e., impact hammer etc.) as well as the details of any other in-water construction work.
- *Ballast Water Intakes and Discharges:* Young life stages of sturgeon may be vulnerable to entrainment at intakes for ballast water or tank test water. NMFS typically recommends screens with 2mm mesh and intakes of 0.5 feet-per-second or less to protect all life stages of shortnose sturgeon. If ballast water will be discharged, the effects of the introduction of invasive species must be considered as well.
- *Vessel Traffic:* As noted above, listed whales are vulnerable to ship strikes. The project proponents should assess the impacts of increased vessel traffic on listed species and provide NMFS with the following information: the expected number of vessel transits (including the relative increase in vessel traffic in the area associated with the LNG terminal), transit speed, and approximate vessel routes. NMFS also recommends that the applicant propose mitigation measures to reduce the likelihood of ship strike, such as reducing vessel speed to 12 knots or less in areas where whales are known to occur and educating vessel operators about whale avoidance measures.

As you may know, Section 7(a)(2) of the Endangered Species Act (ESA) of 1973, as amended, states that each Federal agency shall, in consultation with the Secretary, insure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. Any discretionary federal action that may affect a listed species must undergo Section 7 consultation. As effects to listed species are likely to result from the proposed action, NMFS recommends that the lead federal agency (i.e., FERC) initiate consultation pursuant to Section 7 of the ESA. FERC should submit a biological assessment, a determination of effects along with justification for the determination, and a request for concurrence to NMFS. If FERC determines that the project is “not likely to adversely affect” any listed species (i.e., when direct or indirect effects of the proposed project or its interdependent and/or interrelated actions on listed species are expected to be discountable, insignificant or completely beneficial) and NMFS concurs with this determination, NMFS will reply to FERC in a letter that will convey the concurrence, thus completing Section 7 consultation. If FERC determines that the project is “likely to adversely affect” any listed species (i.e., if any adverse effect to listed species may occur as a direct or indirect result of the proposed action or its interrelated or interdependent actions, and the effects are not: discountable, insignificant, or beneficial) or NMFS does not concur with FERC’s “not likely to adversely affect” determination, formal Section 7 consultation, resulting in the issuance of a Biological Opinion with an appropriate Incidental Take Statement, may be required. Any effects that amount to the take of a listed species (defined by the ESA as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such

conduct”) are not discountable, insignificant or entirely beneficial. Therefore, if any take is anticipated, formal consultation is required.

Initial review of the proposed project suggests that take of shortnose sturgeon and/or sea turtles may occur depending on the timing of dredging and the type of dredge plant to be used. Impacts to listed species from other aspects of the project may also be likely. Please note that if a formal section 7 consultation is necessary, NMFS has 135 days from the date of initiation of consultation (i.e., the date that NMFS has all information necessary to conduct consultation) to deliver a Biological Opinion and Incidental Take Statement to FERC. Any take of a listed species that occurs without special exemption (e.g., an Incidental Take Statement) is illegal pursuant to the prohibitions on take contained in Section 9 of the ESA.

My staff looks forward to working with you on the conservation of listed species in the Chesapeake Bay. Please contact Julie Crocker of my staff at (978)281-9300 x6530 to discuss these comments and the procedures for initiating consultation. For more information on whales and vessel interactions, please contact Kristen Koyama, NMFS Northeast Region Ship Strike Coordinator, at (978)281-9300 ext. 6531.

Sincerely,



Mary A. Colligan
Assistant Regional Administrator
for Protected Resources

Cc: Bolen, F/PR1
Nichols, F/NER4
Crocker, Koyama, F/NER3



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
BALTIMORE DISTRICT, U.S. ARMY CORPS OF ENGINEERS
P.O. BOX 1715
BALTIMORE, MD 21203-1715

ORIGINAL

JUN 13 2006

Operations Division

Ms. Magalie R. Salas, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E., Room 1A
Washington, DC 20426

FILED
OFFICE OF THE
SECRETARY
2006 JUN 21 P 3 32
FEDERAL ENERGY
REGULATORY COMMISSION

Dear Ms. Salas:

This is in response to the Federal Energy Regulatory Commission's (FERC) May 16, 2006 Notice of Intent (NOI) to Prepare an Environmental Impact Statement for the proposed Sparrows Point Project, Docket No. PF06-22-000, and the request for scoping comments and cooperating agency status in the preparation of a National Environmental Policy Act (NEPA) document for the proposed project.

The U.S. Army Corps of Engineers, Baltimore District (Corps) will be a cooperating agency in the preparation of the environmental impact statement (EIS) for the project. The draft EIS will serve as the Department of the Army Section 404/10 permit application for the project. In this regard, we look forward to working with your agency as the document is developed to ensure that the information presented in the NEPA document is adequate to fulfill the requirements of Corps regulations, the Clean Water Act Section 404(b)(1) Guidelines, and the Corps public interest review process.

In addition to the currently identified environmental issues outline in the NOI, the Corps requests that the following topics be comprehensively evaluated in the EIS:

1. Purpose and need for the project. In order to satisfy the Department of the Army regulations, the Corps will need to concur on the purpose and need statement for the project. We would be pleased to work with you and the applicant to develop a purpose and need statement that will satisfy the Department of the Army regulations for review of project under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. As part of the purpose and need for the project, provide additional justification in the EIS regarding the need for the Sparrows Point proposal in light of the Cove Point expansion project.
2. Alternatives analysis/Clean Water Act Section 404(b)(1) Guidelines. Based on the to be agreed upon project purpose, and in accordance with established Corps policy on the review of LNG projects, the Corps will need to concur on the range of alternatives retained for detailed study in the EIS. The alternatives analysis should comprehensively evaluate the following:

- a. Alternative LNG terminal locations
 - b. Alternative pipeline alignments
 - c. Alternative dredge plan configurations, depths, turning basin plans, etc.
 - d. Alternative dredge material disposal sites, recycle options, and treatment/reuse alternatives
 - e. A complete description of the criteria used to identify, evaluate, and screen project alternatives
 - f. Alternative dredge methods (e.g., mechanical, hydraulic)
3. Methods to avoid and minimize impacts to waters of the U.S.
 - a. Alternative terminal and pipeline locations
 - b. Alternative terminal site plan configurations
 - c. Alternative pipeline alignments and alignment shifts
 - d. Horizontal directional drilling (HDD) or other trenchless construction methods for utility line installation. Use of timber mats in wetland areas for utility line construction/equipment access and use of temporary bridges to span streams, etc.
 - e. Methods to minimize dredging turbidity
 - f. Methods to minimize adverse effects to water quality
 - g. Reduction in project scope
 - h. Reuse/upgrade of existing infrastructure at the proposed terminal location
4. Corps public interest review factors. The decision to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest. Among the factors that must be evaluated as part of the Corps public interest review include: conservation, economics, aesthetics, general environmental concerns, wetlands and streams, historic and cultural resources, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, energy needs, safety, food and fiber production, mineral needs, water quality, considerations of property ownership, air and noise impacts, and, in general, the needs and welfare of the people. Each of the Corps public interest factors must be evaluated comprehensively in the EIS.
5. Delineation of all waters of the U.S., including jurisdictional wetlands, in the project area.
6. Quantify impacts to waters of the U.S. (both temporary and permanent) to all waters of the U.S. (e.g., perennial, intermittent, ephemeral streams; rivers, lakes, ponds), including jurisdictional wetlands, for each project alternative. For streams and rivers, include both the linear feet of stream/river impacts (measured along the centerline of the stream/river) and square feet of impact. For temporary wetland impacts, quantify any change in wetland classification (e.g., palustrine forested to palustrine emergent, etc.)

7. Cumulative and indirect impacts resulting from the project.
8. Environmental justice including compliance with the Executive Order 12898 on environmental justice.
9. Describe the disposal options for any excess fill material resulting from utility line installation.
10. Wetland and stream mitigation plans.
11. Analysis of the project's compliance with Section 7 of the Endangered Species Act, Section 106 of the National Historic Preservation Act, Section 401 of the Clean Water Act, and the Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996 (Public Law 04-267) [essential fish habitat (EFH) assessment].
12. Chemical and physical analysis of the dredge material.
13. Based on core samples of the chemical/physical composition of the sediment to be dredged, the method of dredging (e.g., mechanical, hydraulic), and the expected conditions in the waterway (e.g., tides, tidal surge, currents, circulation patterns, etc.), describe the maximum expected turbidity plume and any adverse environmental/water quality impacts, both upstream and downstream, and the expected time duration, resulting from the proposed dredging operation,. In addition, describe the plans and methods to contain and/or otherwise minimize the deleterious effects of the dredging operation to the aquatic environment.
14. Air quality impacts (i.e., Section 176(c) of the Clean Air Act General Conformity Rule Review).
15. Compliance with the Executive order on floodplains.
16. In consideration of the width of the waterway along the ship transit route and density of the local population in the project area, evaluate the safety and environmental issues associated with potential LNG releases and ship collisions.
17. Based on the shipping traffic frequency and speed, evaluate the expected turbidity issues associated with the LNG ships traveling to the berthing areas.
18. In order to adequately address endangered species issues, please ensure that the applicant provides an analysis of the LNG ship transit route for natural resource and endangered species impacts (e.g., whales, turtles, etc.).
19. Address potential conflicts with the LNG shipping traffic and recreational/commercial boating in the Chesapeake Bay, Patapsco River, Bear Creek, and at the proposed terminal location.

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20. Project review schedule and NEPA document preparation schedule. Other important milestones (e.g., public hearings, etc.) should be listed in the EIS.

We look forward to working with your agency as the EIS is developed and the review of the project proceeds. Should you have any questions concerning this letter, please contact Mr. Joseph P. DaVia of my staff at (410) 962-4527.

Sincerely,



FOR Vance G. Hobbs
Chief, Maryland Section Northern

Copy Furnished:

FERC: OEP – Gas Branch 2, PJ-11.2



Robert L. Ehrlich, Jr., Governor
Michael S. Steele, Lt. Governor
C. Ronald Franks, Secretary

November 15, 2006

Kent Morton, Project Director
The AES Corporation
4300 Wilson Boulevard
Arlington, Virginia 22203

RE: AES Sparrows Point LNG Data Request #2
Docket No. PF06-22

Dear Mr. Morton:

As has been previously discussed, the Maryland Department of Natural Resources (DNR), acting through the Power Plant Research Program (PPRP) is conducting an independent risk assessment as part of its critical review of the AES Sparrows Point LNG Project. We appreciate the cooperation and courtesy AES has extended to PPRP throughout our review process including the timely submission of information provided in response to our first data request to AES (dated August 1, 2006). In order to objectively and accurately compare the results of PPRP's risk assessment with those of AES, we have some follow-up requests concerning the specific parameters, assumptions, and quantitative analyses used by AES in its assessment. The specific information being requested is indicated in the attachment to this letter.

We appreciate your continued support and cooperation in this matter and look forward to receiving the requested information. As always, please do not hesitate to contact me if you have any questions regarding this request.

Sincerely,

Richard I. McLean
Manager, Nuclear Programs

Enclosures: AES Sparrows Point LNG Project Data Request #2

AES Sparrows Point LNG Project –Data Request #2

- 2-1. Please provide aerial photographs of the site (ideally with about a 15-square mile range);
- 2-2. Please provide greater detail of the onsite layout (e.g. plot plans, isometric drawings, etc. showing the locations of structures and process items in the process, unloading, metering and send-out areas);
- 2-3. Please provide greater detail of the onsite provision for spill collection and channeling (the spill containment drawings only seem to provide information on the spill basin, further information on trenches or curbing of how releases are directed would be valuable);
- 2-4. Please provide confirmation of the high pressure methane gas route from the process area to metering (including elevation);
- 2-5. Please provide confirmation of the export gas pipeline route from the site (it appears from the drawings we have so far that it is a buried line from the metering back under the process area);
- 2-6. Please provide local population statistics (broken down by suburb if possible);
- 2-7. Please provide any shipping traffic statistics for the Port of Baltimore (freq, size of vessels, and routes);
- 2-8. Please provide flight statistics for Baltimore Washington International (BWI) (particularly take-offs and landings in each direction for each runway); and
- 2-9. Please provide traffic statistics for Francis Scott Key Bridge and William Preston Lane Junior Memorial Bridge (peak and off-peak if possible).